Appl. No. 09/844,273 Amdt. filed Dec. 31, 2003

Responsive to OA of Oct. 3, 2003

**Amendments to the Claims**:

The following listing of claims replaces all previous listing of claims for this

application.

**Listing of Claims:** 

1. (Currently amended) In an a common rail injector for injecting fuel in a common rail

injection system of an internal combustion engine, said injector having an injector

housing (1) which communicates with a central high-pressure reservoir and in which a

nozzle needle (14) that cooperates with a valve piston (6) which is axially displaceable

and guided in a valve piece (2), is axially displaceable, the improvement wherein the

end of the nozzle needle (14) toward the valve piston (6) protrudes into a guide sleeve

(16), and in which the end of the valve piston (6) or an end[[, or]] of a thrust rod (8)

triggered by the valve piston (6), oriented toward the nozzle needle (14) is also received

in the guide sleeve (16).

2. (Currently amended) The <u>fuel</u> common rail injector according to claim 1, wherein

in the end of the nozzle needle (14) toward the valve piston (6), a blind bore is

embodied centrally, and the end of the valve piston (6), or an end of the thrust rod (8)

is [[,]] oriented toward the nozzle needle (14) being received in said bore.

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3. (Currently amended) The fuel common rail injector according to claim 1, wherein

the valve piston (6) or the thrust rod (8), together with [[and]] the guide sleeve (16)

form a unit, and wherein a blind bore is formed centrally in an end of the unit formed by

the valve piston (6) and the thrust rod (8) toward the nozzle needle, the end of the

nozzle needle (14) toward the valve piston being received in said blind bore.

4. (Currently amended) The fuel common rail injector according to claim 1, wherein

on the end of the nozzle needle (14) toward the valve piston (6), a thrust peg (15) is

positioned, embodied, said thrust peg protruding into the guide sleeve (16) or into a

central blind bore formed on the end of the valve piston (6) or on the end of the thrust

rod (8) toward the nozzle needle.

5. (Currently amended) The fuel common rail injector according to claim 1, further

comprising a bearing disk on the face end of the guide sleeve (16) remote from the

nozzle needle (14) between the guide sleeve (16) and a nozzle spring (18), said bearing

disk forming an abutment for a nozzle spring (18).

6. (Currently amended) The fuel common rail injector according to claim 1, further

comprising a collar on the guide sleeve (16), on its face end remote from the nozzle

needle (14), said collar (28) forming an abutment for a nozzle spring (18).

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7. (Currently amended) The fuel common rail injector according to claim 1, wherein

the dimensions of the guide sleeve (16), on its face end remote from the nozzle needle

(14), are adapted to the dimensions of a nozzle spring (18).

8. (Currently amended) The fuel common rail injector according to claim 4, further

comprising a cylindrical recess (22) formed on said guide sleeve (16), on its face end

toward the nozzle needle (14).

9. (Currently amended) The fuel common rail injector according to claim 1, further

comprising an adjusting piece (19) disposed between the nozzle needle (14) and either

the valve piston (6) or the thrust rod (8).

10. (Currently amended) The fuel common rail injector according to claim 1, further

comprising a thrust rod (8) cooperating axially with said valve piston (6), said thrust rod

(8) being disposed so as to be slightly pivotable relative to the longitudinal axis of the

valve piston (6).

11. (Currently amended) The fuel common rail injector according to claim 10, further

comprising a blind bore (7), in the end of the valve piston (6) toward the nozzle needle

(14), said blind bore (7) receiving a tapering end of the thrust rod (8).

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12. (Currently amended) The fuel common rail injector according to claim 1, wherein

the end of the valve piston (6) toward the nozzle needle (14) can be deflected elastically

in the radial direction out of the axis of symmetry of the valve piston (6).

13. (Currently amended) The fuel common rail injector according to claim 3, wherein

on the end of the nozzle needle (14) toward the valve piston (6), a thrust peg (15) is

positioned, embodied, said thrust peg protruding into the guide sleeve (16) or into a

central blind bore formed on the end of the valve piston (6) or on the end of the thrust

rod (8) toward the nozzle needle.

14. (Currently amended) The fuel common rail injector according to claim 2, further

comprising a bearing disk on the face end of the guide sleeve (16) remote from the

nozzle needle (14) between the guide sleeve (16) and a nozzle spring (18), said bearing

disk forming an abutment for a nozzle spring (18).

15. (Currently amended) The fuel common rail injector according to claim 4, further

comprising a bearing disk on the face end of the guide sleeve (16) remote from the

nozzle needle (14) between the guide sleeve (16) and a nozzle spring (18), said bearing

disk forming an abutment for a nozzle spring (18).

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16. (Currently amended) The fuel common rail injector according to claim 2, further

comprising a collar on the guide sleeve (16), on its face end remote from the nozzle

needle (14), said collar (28) forming an abutment for a nozzle spring (18).

17. (Currently amended) The fuel common rail injector according to claim 4, further

comprising on the guide sleeve (16), on its face end remote from the nozzle needle

(14), said collar (28) forming an abutment for a nozzle spring (18).

18. (Currently amended) The fuel common rail injector according to claim 2, wherein

the dimensions of the guide sleeve (16), on its face end remote from the nozzle needle

(14), are adapted to the dimensions of a nozzle spring (18).

19. (Currently amended) The fuel common rail injector according to claim 4, wherein

the dimensions of the guide sleeve (16), on its face end remote from the nozzle needle

(14), are adapted to the dimensions of a nozzle spring (18).

20. (Currently amended) The fuel common rail injector according to claim 5, further

comprising a cylindrical recess (22) formed on said guide sleeve (16), on its face end

toward the nozzle needle (14).

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21. (Currently amended) The fuel common rail injector according to claim 6, further

comprising a cylindrical recess (22) formed on said guide sleeve (16), on its face end

toward the nozzle needle (14).

22. (Currently amended) The fuel common rail injector according to claim 4, further

comprising a cylindrical recess (22) formed on said guide sleeve (16), on its face end

toward the nozzle needle (14).

23. (Currently amended) The fuel common rail injector according to claim 2, further

comprising an adjusting piece (19) disposed between the nozzle needle (14) and either

the valve piston (6) or the thrust rod (8).

24. (Currently amended) The fuel common rail injector according to claim 4, further

comprising an adjusting piece (19) disposed between the nozzle needle (14) and either

the valve piston (6) or the thrust rod (8).

25. (Currently amended) The fuel common rail injector according to claim 5, further

comprising an adjusting piece (19) disposed between the nozzle needle (14) and either

the valve piston (6) or the thrust rod (8).

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26. (Currently amended) The fuel common rail injector according to claim 2, further

comprising a thrust rod (8) cooperating axially with said valve piston (6), said thrust rod

(8) being disposed so as to be slightly pivotable relative to the longitudinal axis of the

valve piston (6).

27. (Currently amended) The fuel common rail injector according to claim 3, further

comprising a thrust rod (8) cooperating axially with said valve piston (6), said thrust rod

(8) being disposed so as to be slightly pivotable relative to the longitudinal axis of the

valve piston (6).

28. (Currently amended) The fuel common rail injector according to claim 7, further

comprising a thrust rod (8) cooperating axially with said valve piston (6), said thrust rod

(8) being disposed so as to be slightly pivotable relative to the longitudinal axis of the

valve piston (6).

29. (Currently amended) The fuel common rail injector according to claim 2, further

comprising a blind bore (7), in the end of the valve piston (6) toward the nozzle needle

(14), said blind bore (7) receiving a tapering end of the thrust rod (8).

30. (Currently amended) The fuel common rail injector according to claim 2, wherein

the end of the valve piston (6) toward the nozzle needle (14) can be deflected elastically

in the radial direction out of the axis of symmetry of the valve piston (6).

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